Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (cancelled)

Claim 2 (currently amended) ~~The method of claim 1, wherein:~~ A method of downsampling a two-dimensional block of discrete cosine transform (DCT) coefficients, comprising:

  (a) providing a two-dimensional NxN block of DCT coefficients;

  (b) applying a one-dimensional $N/2$xN de-interlacing inverse discrete cosine transform (IDCT) with respect to a first dimension of said block; and

  (c) applying a one-dimensional de-interlacing inverse discrete cosine transform (IDCT) with respect to a second dimension of the results of step (b);

  ~~(a)~~ (d) wherein said de-interlacing IDCT is $x_e = \mathbf{T}^t(N/2)\,z_p + \mathbf{Q}\mathbf{T}^t(N/2)\mathbf{K}^t\,z_r$, where x_e is a vector of four downsample values, z_p is an $N/2$ component vector of the even-index components of a column of coefficients in said first dimension of said block, said even-index components in bit-reversed order, z_r is an $N/2$ component vector of the odd-index components of said column of coefficients in said first dimension of said block, said odd-index components in bit-reversed order, $\mathbf{T}^t(N/2)$ is the $N/2$-point IDCT, $\mathbf{K} = \mathbf{R}\mathbf{L}\mathbf{R}^t$, where $\mathbf{R}$ is a bit-reversal permutation matrix; and $\mathbf{L}$ is a $N/2$ x $N/2$ lower-triangular matrix, and $\mathbf{Q}$ is a $N/2$ x $N/2$ diagonal matrix: diag[cos(($4m + 1$) $/2N$)] for $m = 0, 1, \ldots, N/2$ 1.

Claim 3 (currently amended) The method of ~~claim 1~~ claim 2, wherein:

  (a) said block is 8x8.

Claim 4 (cancelled)

Claim 5 (currently amended) ~~The method of claim 4, wherein:~~ <u>A method of downsampling a two-dimensional block of discrete cosine transform (DCT) coefficients, comprising:</u>

  <u>(a) providing a two-dimensional NxN block of DCT coefficients;</u>

  <u>(b) applying a one-dimensional $N/2$xN de-interlacing inverse discrete cosine transform (IDCT) with respect to a first dimension of said block;</u>

  <u>(c) applying a one-dimensional inverse discrete cosine transform (IDCT) with respect to a second dimension of the results of step (b); and</u>

  <u>(d) downsample the results of step (c) with respect to said second dimension;</u>

  ~~(a)~~ <u>(e) wherein</u> said de-interlacing IDCT is $\mathbf{x}_e = \mathbf{T}^t(N/2)\,\mathbf{z}_p + \mathbf{Q}\mathbf{T}^t(N/2)\mathbf{K}^t\,\mathbf{z}_r$, where x_e is a vector of four downsample values, z_p is an $N/2$ component vector of the even-index components of a column of coefficients in said first dimension of said block, said even-index components in bit-reversed order, z_r is an $N/2$ component vector of the odd-index components of said column of coefficients in said first dimension of said block, said odd-index components in bit-reversed order, $\mathbf{T}^t(N/2)$ is the ~~4~~ $N/2$-point IDCT, $\mathbf{K} = \mathbf{R}\mathbf{L}\mathbf{R}^t$, where $\mathbf{R}$ is a bit-reversal permutation matrix; and $\mathbf{L}$ is a $N/2$ x $N/2$ lower-triangular matrix, and $\mathbf{Q}$ is a $N/2$ x $N/2$ diagonal matrix: diag[cos$((4m + 1)$ $/2N)]$ for $m = 0, 1, …, N/2$ 1.

Claim 6 (currently amended) The method of ~~claim 4~~ <u>claim 5</u>, wherein:

  (a) said block is 8x8.